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ABSTRACT

The Task Force on Teaching was asked to gather research, review literature, and collect testimony on improving teaching. Two papers are presented: (1) "Attracting and Retaining Talented Teachers" (Cindy K. Currence); and (2) "Building State Strategies to Attract and to Retain Talented Teachers" (Robert Palaich). This report also includes a list of the charges to the task force, information on task force hearings and presenters, and additional resources. (JD)

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TASK FORCE ON TEACHING

Supporting Works

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Time For Results

THE GOVERNORS' 1991 REPORT ON EDUCATION

TIME FOR RESULTS: The Governors' 1991 Report on Education

Supporting Works

Task Force on Teaching

CHAIRMAN

Thomas H. Kean
Governor of New Jersey

TASK FORCE MEMBERS

Bruce Babbitt
Governor of Arizona
Vice Chairman

John V. Evans
Governor of Idaho

Terry Branstad
Governor of Iowa

Joseph E. Brennan
Governor of Maine

William A. Allain
Governor of Mississippi

James G. Martin
Governor of North Carolina

Charles S. Robb
Former Governor of Virginia

August 1986.

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The National Governors' Association Center for Policy Research and Analysis coordinated the year-long project. Professional staff and consultants include Joe Nathan, Joan L. Wills, Evelyn Ganzglass, Carol Eliason, Rae Young Bond, Linda Myers Dove, Jean McDonald, and Cindy K. Currence. Editorial support was provided by Mark Miller, Karen Eldridge, Diane Greene, and Alan Janesch. Expert secretarial assistance was provided by Beverly Bowers, Linda Burnette, Luisa Farrell, Francine Matthews, and Deborah Woods.

The Task Force on Teaching of the National Governors' Association has been fortunate to receive the cooperation and aid of the distinguished panelists listed in this compendium. Dr. Charles Haughey and Jim Bencivenga of the Office of Educational Research and Improvement of the U.S. Department of Education provided invaluable assistance throughout the work of the task force. Funding from the Lyndhurst Foundation and the Carnegie Corporation of New York made this work possible.

Charge to the Task Force on Teaching

The Task Force on Teaching was asked to gather research, review literature, and collect testimony to address the following questions:

A. What has been learned about career ladder programs?

B. What is known about programs providing alternative routes to teaching?

C. What has been the impact of using different kinds of financial incentives to attract and retain people in the teaching profession?

D. In which teaching fields are widespread shortages likely to occur in the next five years?

E. Can loan programs be designed to attract talented people who would otherwise not enter the profession to enter education, particularly for fields of specialization in high demand?

F. Is there data showing that the competency of teachers has improved with the increase of teachers' salaries?

G. Is there data showing how much teachers' salaries would have to be increased in order to attract students with significantly higher test scores?

H. Is there any correlation between scores on tests teachers are required to take in some states prior to being certified and subsequent performance in a classroom?

The task force was charged with answering the following policy-related questions:

A. How can states establish career ladder programs which improve the quality of instruction provided to students?

B. What are the critical components of a state policy on alternative routes to teaching which attract highly skilled people?

C. What are the best ways to target funds to retain talented teachers in the classroom?

D. How might states experiment with teacher-partnership programs?

E. What kind of public-private partnerships can states establish to improve teacher quality?

Task Force Activities: Hearings and Presenters

The Task Force on Teaching held two meetings, both of which were structured as roundtable discussions. At the first hearing, panelists discussed problems of attracting and retaining outstanding teachers and reviewed steps governors can take to address this issue.

Rutgers University, New Brunswick, New Jersey, December 12, 1985

Greg Anrig
President
Educational Testing Service

Robert Boose
Commissioner
Maine Department of Education

Saul Cooperman
Commissioner
New Jersey Department of Education

Janice Fitzsimmons
New Jersey Teacher of the Year

Albert Fox
Principal
Varina High School
Richmond, Va.

Susan Fuhrman
Eagleton Institute of Politics
Rutgers University

Mary Hatwood Futrell
President
National Education Association
Washington, D.C.

Willis Hawley
Dean
Vanderbilt University
Nashville, Tenn.

The Honorable Thomas H. Kean
Governor
State of New Jersey

Leo Klagholz
Director, Bureau of Teacher Preparation and Certification
New Jersey Department of Education

Robert Palaich
Education Commission of the States

The Honorable Charles S. Robb
Governor
Commonwealth of Virginia

Albert Shanker
President
American Federation of Teachers

Robert Spillane
Superintendent
Fairfax County, Va., Public Schools

Michael Timpane
President, Teachers College
Columbia University

Marc Tucker
Executive Director
Carnegie Forum on Education and the Economy

Rita Walters
President
Los Angeles Board of Education

At the second hearing, again in roundtable discussion format, the major topic was what research and researchers are saying about ways to make teaching more professional. Distinguished panelists included:

Newark, New Jersey, March 24, 1986

Bernadette Anand
Teacher
Montclair, N.J., School District
New Jersey Representative to the National Teacher Forum

Alan K. Campbell
Vice President, Committee on Economic Development Study, "Investing in Our Children"
ARA Services, Inc.

David Imig
Director
American Association of Colleges for Teacher Education

The Honorable Thomas H. Kean
Governor
State of New Jersey

Leo Klagholz
Director, Bureau of Teacher Preparation and Certification
New Jersey Department of Education

Judith Lanier
Dean, College of Education
Michigan State University

Margaret Lathlene
Teacher
Friends Wood, Texas
Teacher in Space program

Jonathan Lewis
California Commission on the Teaching Profession

Richard P. Mills
Special Assistant to the Governor
New Jersey

Marc Tucker
Executive Director
Carnegie Forum on Education and the Economy

ATTRACTING AND RETAINING TALENTED TEACHERS

Prepared by Cindy K. Currence
Consultant
National Governors' Association

THE PROBLEM

Many state and national reports issued during the educational reform movement of the past three years suggest that public education in the United States must improve substantially if this country is to compete effectively in the world markets of the future.

While the reports have generated much debate and disagreement about how best to upgrade the nation's schools, all of the reports indicate that teachers and teaching are central to reform.

> The most effective way to improve the achievement of a given student is to improve the quality of teaching that the student experiences. Not only does the research on student achievement increasingly document the influence of the things teachers do on student achievement, there is an enormous amount of evidence that teachers have a significant impact on efforts to change schools and on the nature of the student's experience, whatever the formal policies and curricula of a school or classroom might be. Teachers modify curricula, intentionally or not. They keep the gates through which students must pass to gain access to the learning resources available. Teachers allocate and manage students' time, set and communicate standards and expectations for student performance, and in a multitude of other ways, enhance or impede what students learn (Hawley and Rosenholtz 1984, p. 6).

The reports also suggest that today's "crisis" in teaching, however serious, provides policymakers and educators with a unique opportunity for making significant changes in a troubled profession.

THE IMPACT OF DEMOGRAPHICS AND A CHANGING SOCIETY

Although the full scope of an impending crisis in the quantity and quality of teachers remains uncertain, experts are predicting that it may be the most severe the nation has experienced (Darling-Hammond 1984). They base their predictions on the convergence of demographic trends.

Since 1973, both the number of college students majoring in education and the academic quality of those students have declined. Nearly 50 percent fewer students were enrolled in colleges of education in 1983 than in 1973; and while Scholastic Aptitude Test scores of college-bound students who identify teaching as their prospective profession have consistently been lower than those of other students entering other professions or graduate training programs, within the past decade new teacher candidates' scores have dipped even lower (Darling-Hammond 1984).

This paper reviews literature and research on teaching, synthesizes the presentations of the panelists at the two hearings on teaching, and presents models of state activities and programs related to teaching as a profession.

Complicating the quantity problems is the unprecedented number of teachers who are nearing retirement age. The average age of American teachers -- now about forty-two -- is rising, and in the next five years, up to 40 percent of the current teaching force will retire (National Education Association 1983).

Concurrently, the precollegiate age group has begun to expand -- the result of the coming of school age of the "baby boomlet" children born to the post-World War II generation (NEA 1985).

The National Center for Education Statistics predicts that by 1992, if these trends continue, there will be 283,000 fewer teachers nationwide than positions available (Plisko 1984).

Throughout this century, demographic trends similar to those described above have made staffing public school classrooms difficult, but not impossible. Historically, demand has been met by "lowering" standards -- first to allow women to teach and then to allow minorities into the profession (Darling-Hammond 1984; Lanier 1986; Schlecty and Vance 1981; Sweet and Jacobsen 1983; Weaver 1981).

Fortunately for the public schools, officials' lowering of standards in the past actually brought many of the country's best and brightest women and minorities into the schools. Today, however, society has changed in a number of ways that will make the easy solutions of the past impossible and force schools to compete primarily on the basis of market forces. No longer does America have the luxury of staffing its schools with a "captive" teaching force of women and minorities.

> Over the last two decades, society has changed in a number of ways that profoundly affected the nation's teaching force.
>
> America's college-educated women pursued careers other than homemaking. Employment opportunities for women and minorities increased. And the majority of American households came to depend upon more than a single income. For the middle-class families supplying the nation's teachers, two employed adults became the norm.
>
> The consequences of these changes for the teaching force are complex and interactive. Many women who formerly left teaching to marry or rear children retained their jobs. They soon found themselves confronted with the frustrations and negative effects long associated with prolonged work in teaching. With few opportunities for upward mobility, the same situation confronted a growing number of male teachers staying in classrooms. The difficulties encountered by their predecessors, the few who made careers of teaching, were suddenly experienced by a substantial majority of the teaching population (The Holmes Group 1986, p. 36).

A PROFESSION IN NEED OF OVERHAUL

Given the confluence of these demographic and societal changes, experts suggest that solving today's problems of attracting and retaining high quality teachers will require a major restructuring of the teaching profession and a rethinking of the role of the teacher.

To accomplish that goal, the most salient argument advanced in recent years has been that the teaching force needs to be "professionalized." Specifically, educators, policymakers, and business leaders have called for comprehensive reforms that would in general: ensure the quality of the teaching force; substantially upgrade the training prospective teachers receive; revise licensure and certification policies; change the structure of schools to allow teachers far more autonomy and professional discretion; and hold teachers and schools accountable for the education children receive (American Association of Colleges of Teacher Education 1985; Bell 1984; Boyer 1983; Committee for Economic Development 1985; Carnegie Forum on Education and the Economy 1986; Goodlad 1983; Holmes Group 1986; National Commission on Excellence in Education 1983; Shanker 1985; Sizer 1984).

These educational leaders have based their recommendations on recent research indicating a high -- and increasing -- level of dissatisfaction among teachers. Particularly troublesome are statistics showing that the most academically able teachers are the first to leave the profession. Phillip Schlecty and Victor Vance (1981) found in a study of attrition rates of North Carolina teachers that two-thirds of the teachers who scored in the top 10 percent on the National Teacher Examinations left teaching within seven years.

Most telling, research shows that among the rank-and-file teachers, nearly half claim that if they had to do it over again they would not enter teaching, a five-fold increase over 1966 (NEA 1983). A similar percentage would be reluctant to advise their children (Gallup 1984) or any young person (Harris 1985) to become a teacher.

Teachers surveyed most often cite lack of status, poor working conditions, and an inability to exercise professional judgment as reasons for their dissatisfaction with their jobs.

Half of all teachers feel that students, parents, and the society at large no longer respect them (Harris 1985). Poor salaries are one sign of low prestige: "The salary seems to say anyone can do this" (Fiske 1982). Teachers rank teaching number one of twelve major occupations in terms of the benefits it gives to society, but number twelve in terms of the respect society grants it (Gallup 1984).

And although 96 percent of teachers say they love to teach (Harris 1985) and 88 percent are pleased with the flexibility they have in deciding how to teach (NEA 1983), data suggest that teachers' ability to contribute outside their classrooms is limited:

- 90 percent think they should have the right to participate in decisions about what should be taught in their school, whereas only 41 percent actually have the opportunity to do so;

- o 98 percent feel that teachers should work with administrators in setting schools' discipline policies, yet 58 percent are uninvolved;

- o 98 percent would like teachers' preferences to be considered in making teaching assignments, but fewer than half (42 percent) say that such is the case in their district;

- o 84 percent believe teachers should have some say in assigning students to classes, contrasted with only 28 percent who do;

- o 78 percent say they should be included in the selection of new teachers to their schools, while only 15 percent lay claim to such authority (Koppich et al. 1985).

Teachers feel limited in their ability to realize certain professional goals. They lack decisionmaking authority in the school. They desire more productive and fulfilling relations with their peers. They find "little correlation between what their professional knowledge and expertise tells them and their actual experience in the classroom" (Koppich et al. 1985).

Anecdotal evidence gathered by the Carnegie Foundation for the Advancement of Teaching in 1983 also suggests that teachers are not required to use and share their expertise, nor given the opportunity to do so.

> What stands out is a high level of isolation. Teachers have limited opportunities for interaction within their schools. There is very little discussion about teaching and learning, curriculum, purposes, and the like. In addition, teachers have very minimal opportunities for professional exchange with colleagues outside their building. This enormously limits their views of themselves as significant professionals. To participate in a professional meeting in many of the systems means losing compensation in some form. Almost nowhere did we observe productive provisions for in-service education or real concern about professional development viewed as a reflective process. Our observers were received enthusiastically in all of the schools because they provided significant contacts as stimulating outsiders interested in the teachers' work....
>
> In few cases did we observe teachers actively involved in such matters as governance, decisions about the school and its curriculum, and its assessment procedures. Important decisionmaking, from their perspective, goes on elsewhere. There is discouragement about this, especially in the large cities (Perrone 1985).

The reality of teaching described above has led researchers to conclude that it is "a semi-profession struggling to survive in an anti-professional environment. Fraught with tensions it is incapable of resolving, teaching has been forced to compromise its sense of identity and integrity" (Mills and Stout 1985).

Teaching as a profession exhibits few of the characteristics that define other professions. Opportunities for career advancement have been virtually nonexistent within teaching. Advancement has traditionally meant leaving the classroom to assume administrative roles and responsibilities (Hawley et al. 1985). The lack of career stages within teaching, unlike other professions, provides little opportunity for upward mobility and orientation toward the future (Lortie 1975; Rosenholtz and Smylie 1984). Teachers have virtually no control over who enters and remains in their ranks. They have been unable to have substantial influence over the development of standards that define acceptable and effective practice and ways to measure and evaluate performance. And teachers have had little control over determining how to improve themselves and the effectiveness of their peers.

Last year, leaders of both of the nation's leading teachers' unions predicted educational "disaster" if teaching does not begin to adopt the characteristics of a "true" profession (Currence 1985).

LESSONS FROM OTHER PROFESSIONS

A striking characteristic of professions such as medicine, law, architecture, engineering, and accounting is the degree to which the professional is free to do what he or she was especially trained to do.

The professions also are characterized by a high degree of collegiality; partnerships form the basis of most professional organizations. A great deal of attention is paid to recruiting young talent into the system and then developing that talent to its highest potential. Most professions require a lengthy induction period but provide a clear structure for advancement with built-in support.

In addition, the professions enjoy a great deal of self-regulation and individual independence. Professional societies have a great deal of influence in deciding the standards for certification as a professional, state licensing to practice the profession, and codes of ethics to govern professional conduct. The professions themselves, through their governing boards, are expected to play a major role in enforcing these standards.

Finally, expertise is at the core of the conception of the professional. It is inconceivable that one could be a competent professional without it. All professions are founded on professional education, and all professionals certified as competent must pass rigorous examinations. Professionals themselves decide the standards of entry as well as the continuing education necessary to stay abreast of one's field. By virtue of their knowledge, they enjoy both a major voice in deciding who will be licensed to practice as well as significant influence on professional education, often as clinical professors in graduate professional schools.

"The traditional professions illuminate the goals we should set for a really first-class teaching force in America," concludes the Carnegie Forum on Education and the Economy in First Class Teachers for a First Class America (1986).

Aside from the historical evidence suggesting that the operating principles of the professions have served them well (Carnegie Forum 1986), research suggests that professionalization could not only halt "disaster," but would actually work well in attracting and retaining a high quality teaching force.

While professionalization of the teaching force is a key recommendation of educational reformers today, it should be noted that a great deal of controversy surrounds the means of accomplishing that goal, primarily due to conflicting -- and in some cases nonexisting -- data on the issues. The balance of this paper will discuss the findings of research related to these issues and identify informational gaps and areas of conflict.

LETTING TEACHERS TEACH

One area in which there is little disagreement about how to effect change is the "milieu" of teaching. It is clear from the data presented earlier that teachers are dissatisfied with the working conditions of schools -- the long hours, overcrowded classrooms, excessive bureaucracy and paperwork, and too many nonteaching duties.

> Like Saturn's rings, unprofessional working conditions, which teachers confront daily, consist of thousands of tiny grains of dust that appear solid from a distance but that seem to dissolve into pettiness when one moves close enough to initiate change. Isolation in classrooms, lack of even modest resources to use according to one's professional judgment. scarcity of time for extended conversations with colleagues, no permanent study space or access to a telephone, no capacity to delegate administrative details: These are the grains of dust. Taken collectively, they form an impenetrable barrier to professionalism (Scott Nelson 1986, p. 51).

John Goodlad found a "continuation of school and classroom conditions that drain physical and emotional energy and tend to promote routine rather than sustained creative teaching" (1983, p. 169) and Susan Rosenholtz and Mark Smylie (1984) suggest that teacher attrition is most related to working conditions that undermine the teacher's ability to do an effective job. (It should be stated that Louis Harris [1985] found salary complaints to be the main source of job dissatisfaction; the issue of salary will be discussed later in this paper.)

Such data and his own in-depth study led Ernest Boyer (1983, p. 185) to conclude that if schools are to keep "outstanding teachers in the classroom and [attract] into teaching young persons worthy to be their successors," teachers must be freed from all noninstructional duties and classroom interruptions, conduct no more than four formal class meetings a day, and be allowed at least one hour a day for class preparation.

If the professions are used as a model in this instance, one would find that typically others are hired to perform the work that does not require

professional training and skill. Most family physicians, for example, would not dream of being their own lab technicians, recordkeepers, or bookkeepers any more than they would permit the receptionist to usurp their role of counseling patients about nutrition and hygiene as they relate to health (Carnegie Forum 1986).

In one respect, it has made economic sense for schools to require their teachers to conduct clerical and housekeeping activities. The average starting salary for teachers in 1984 -- $14,500 (U.S. Department of Labor 1984) -- was actually less than the average annual salary of central office secretaries, who made $15,434 during the same time period (ERS 1985). However, teacher salaries have improved within recent years, up 7.3 percent in the 1984-85 school year and up an additional 7.3 percent in the 1985-86 school year (NEA 1986). If salaries continue to improve, as is expected (CED 1985), it will become more cost-effective for school administrators to hire clerical support and teachers' aides to carry out nonteaching duties.

THE IMPORTANCE OF COLLEGIALITY

Another crucial element in improving the milieu in which teachers work is increasing opportunity for experiences in collegiality or "colleagueship." In addition to making teachers feel more positive about their work, informal feedback through collegial exchange among teachers can help teachers learn and improve their practice (Rosenholtz and Smylie 1984). However, teacher isolation is the norm in most schools. D. Lortie (1972) found that 45 percent of teachers had no contact with other teachers in the course of their workday and another 32 percent had only occasional contact. And when teachers do interact, they usually do not discuss their work or collaborate to solve shared problems (Feiman-Nemser and Floden 1986).

> Teacher isolation creates and tends to reinforce teachers' belief that they alone are responsible for running their classrooms and that to do so successfully requires maximum autonomy and independence. Many teachers fear that requests for assistance from colleagues imply a lack of teaching competence. The fear is particularly acute for beginning teachers. Because the implications that requests for or offers of assistance have for negative perceptions of competence, most teachers feel a clear moral constraint against offering or asking for suggestions about even the most routine matters.
>
> These conditions leave teachers with few alternative sources of learning and improvement. Opportunities for professional development outside the workplace, such as university coursework, conferences, and institutes, are often irrelevant to teachers' day-to-day needs and concerns, are often seen by teachers as insufficiently practical, and are often focused on some role the teacher may assume in the future, e.g., administrative roles; rather than on activities in which the teacher is currently involved. Most teachers are left in their day-to-day work to rely on learning from experience and trial and error or drawing on

memories of techniques used by teachers they had in school. These sources seem very limited and may be counterproductive to improvement (Hawley et al. 1985, p. 3).

While research indicates that this isolation is a destructive force, effective schools data show that schools with a climate of staff collegiality and a system of mutual support have a positive impact on student achievement (Glidewell et al. 1983; Little 1982; Lortie 1975; Tye and Tye 1984).

Collegial goal setting, problem solving, and performance evaluation can improve teachers' skills, willingness to experiment, and, ultimately, their effectiveness (Bishop 1977; E.G. Cohen 1981; Little 1982). Effective school programs encourage these interactions by establishing the school organization as the diagnostic, problem-solving unit, much like the quality circles found effective in private industry (T. Mills 1978; Pratzner 1984).

Jere Brophy (1979) found that many less effective teachers change inappropriate behavior readily if they are given simple feedback about those behaviors. Feedback can be provided by any observer, but peer observation seems to work best. According to Brophy, when working as a group, teachers not only get useful feedback relevant to their individual interests, but begin to work together, sharing expertise and observations and breaking down the isolation that so often is a barrier to professional development.

Pilot programs in which teachers join colleagues within their communities to work on collaborative ventures also have shown positive results. The math collaboratives, sponsored by the Ford Foundation in Los Angeles, Cleveland, Minneapolis, and San Francisco, are expected to produce teachers who are "more enthusiastic about their profession, ask increasingly interesting questions of their students, become more receptive to new ideas and suggestions, and become more encouraging of their students' efforts to learn" (Scott Nelson 1986, p. 52).

CHANGING THE STRUCTURE OF TEACHING

Some have argued that teacher recruitment and retention would be improved if the career ladder for teachers were less "flat" -- that is, if there were possibilities for promotion within teaching as opposed to promotion into administrative ranks (IFG Policy Notes 1985).

The notion of "career" invariably includes moving upward in one's chosen profession. As responsibilities increase, more money, more authority, and usually greater prestige also are required. Ironically, the career path of teachers in recent years has been closest to the pattern of blue collar workers having little formal education (Duttweiler and Ramos-Cancel 1986). Their initial work stage is marked by moving from job to job, until they achieve a stable work situation. Thereafter, they maintain one job until retirement (Bornfriend 1985).

The lack of a career pattern also limits teachers' opportunities for recognition and status. In order to have opportunities for increased status, teachers must leave the classroom for full-time administration, supervision,

or curriculum development (Burden 1985). Classroom teachers who do not choose to become administrators or counselors will fulfill the same job description the day before retirement as they did on their initial day of employment.

Goodlad (1983) warned that unless something is done to change this "flatness" of the occupation, "we might as well resign ourselves to a permanent state of low pay for teachers and the continuation of teaching as a marginal profession."

Teachers are almost unanimous (95 percent) in supporting changes in working conditions and in supporting incentives for drawing in and retaining qualified teachers (Harris 1984). A poll conducted in 1983 by The American School Board Journal found that a clear majority (62.7 percent) of those responding agreed that teachers should be paid according to how well they perform in the classroom (Rist 1983). Both teachers (81.6 percent) and principals (92 percent) have expressed support for the development of career ladders that "would pay higher salaries to teachers who assume additional responsibilities" such as supervising and training new teachers or developing curriculum modules (Spectrum 1985). However, depending on the poll cited, anywhere from 50 percent to 70 percent of teachers were opposed to merit pay (Gallup 1984; Mills and Stout 1985; ERS 1985; Harris 1984). They question that merit can be determined fairly and objectively.

This appears to be a paradox (Duttweiler and Ramos-Cancel 1986). Teachers approve of incentives and salaries based on performance in the classroom, but they do not believe merit can be determined fairly and objectively and are opposed to merit pay. However, the two positions are not necessarily contradictory. Teachers are aware that much of the pressure for merit pay comes from those who want to get rid of incompetent teachers. The result has been that some forms of merit pay have been instituted that reward superior teachers but virtually ignore the average or less-than-average teacher. According to those who run successful merit pay programs in their school systems, only disaster can result from the practice of using money to punish some teachers while throwing money at a handful of other teachers selected as superior (Cramer 1983).

Merit pay opponents point out that merit pay plans alone have had a troubled history (Johnson 1984). Merit pay has been abandoned by most districts that have tried it (Porwall 1979). And there is little evidence that it is an effective motivational device even in the private sector (Lawler 1981; Rosenholtz 1984). Most observers find the problems of implementing merit pay unsolvable (Johnson 1984), and where it does seem to work, its impact is largely innocuous (Cohen and Murnane 1985).

However, a major difference in the performance-based incentive pay plans of today's reform effort has made the plans more effective and most states have adopted some type of incentive pay plan as part of their educational reform packages. Two years ago, no state paid teachers or administrators on the basis of performance. Today, thousands of teachers and a smaller number of school administrators are receiving incentive payments. Fifteen states are implementing large programs, funding pilot projects, or supporting the local development of performance-based incentive programs. Six other states have mandates to develop programs (Cornett 1986).

What is new about current proposals for performance-based pay is that they are often tied to the idea of a career ladder that teachers can climb and thereby attain not only higher pay but higher occupational status. Advocates of career ladder plans see them as motivational devices for those in the profession to improve and remain in teaching and as attractors for ambitious and bright young people who have eschewed teaching because it had had "no future." Career ladder plans provide incentives for professional development similar to those of other professional occupations, rather than simply supplying monetary incentive for outstanding performance (Darling-Hammond 1985).

While "the jury is still out" on the success of career ladders used on a large scale (Cornett 1986), experts say the plans have the potential to provide teachers intrinsic rewards in the form of recognition and status for excellent teachers; options for diverse work responsibilities without leaving the classroom entirely; opportunities for career advancement; career options within teaching and control over these options; opportunities to assist beginning teachers; greater collegial interaction with peers; the chance to use a wide spectrum of abilities; and opportunities for professional growth (Alexander 1983; Bell 1984; Burden 1985).

In addition, career ladders could provide certain extrinsic rewards: high pay as teachers advance on the career ladder; other improved aspects of the work environment, such as working conditions, effects on personal and professional life, interpersonal relations, training assistance, and opportunity for recognition; and more input into decisionmaking, curriculum development, supervision, and administration at the school and district level.

Despite high hopes for career ladders, however, research indicates that many of them already have run into trouble -- most notably in Tennessee and Florida, the leaders of career ladder implementation.

A major stumbling block in both states has been the issue of how teachers are evaluated and what criteria are used to determine which teachers will advance on the ladder (Currence 1985a; Dronka 1986). Unless this issue is addressed immediately, researchers predict, programs developed during the past two years could be derailed completely.

> The most basic issue associated with the development and implementation of these types of policies and programs concerns assumptions about the very nature of teacher quality and effectiveness itself. Any policy or program that seeks to measure and/or reward levels of effective performance must answer questions such as: What makes a teacher "good" or "effective"? What are the appropriate roles for a teacher in his or her work? What are relevant teaching outcomes that can be used to determine levels of effectiveness? How can one relate teacher practice, or other indicators, to the outcomes one uses to determine effectiveness? All of these questions have a direct bearing on policy because they point to assumptions about policy

> goals and objectives. They also help us understand tensions that might arise between various stakeholders affected by the policy who hold different perspectives of teachers' roles and definitions and measurement of teachers' effectiveness. Furthermore, policy assumptions create at least implicit goals for roles, work, and performance. Policy assumptions that do not accurately reflect that which is important to teacher improvement and student learning may actually become counterproductive as teachers strive to meet policy goals (Hawley et al. 1985, p. 19).

EVALUATION

The most difficult task of developing a career ladder plan is not the structure of the program, but designing an evaluation program that is perceived as fair and that can be administered effectively (Duttweiler and Ramos-Cancel 1986).

Arthur Wise et al. (1984), in their major study of teacher evaluation, found the process suffered serious problems and characterized it as an "underconceptualized and underdeveloped activity."

In the thirty-two systems surveyed in the study, teacher evaluation practices differed considerably. Although the practices seemed similar in broad outline, they diverged as local implementation choices were made. School authorities did not agree on what constitutes the best practice with regard to instrumentation, frequency of evaluation, the role of the teacher in the process, or how the information could or should inform other district activities.

Despite differences in level of development and diversity of local implementation choices, the major problems associated with teacher evaluation practices were similar in all thirty-two districts. Almost all survey respondents felt that principals lacked sufficient resolve and competence to evaluate correctly.

Where teacher evaluation did succeed, attention to four factors -- organizational commitment, evaluator competence, teacher-administered collaboration, and strategic compatibility -- were responsible for elevating evaluation from a superficial exercise to a meaningful process that produces useful results in staff development, school improvement, personnel decisions, and school status decisions.

The study concluded that:

- To succeed, a teacher evaluation system must suit the educational goals, management style, conception of teaching, and community values of the school district;

- Top-level commitment to and resource for evaluation outweigh checklists and procedure;

- o The school district should decide the main purpose of its teacher evaluation system and then match the process to the purpose;

- o To sustain resource commitments and political support, teacher evaluation must be seen to have utility; and

- o Teacher involvement and responsibility improve the quality of teacher evaluation.

The report cautions that the above recommendations constitute a set of necessary, but not sufficient, conditions for successful teacher evaluation. In practice, educational policies and procedures must be tailored to local circumstances. The recommendations should be thought of as heuristics, or starting strategies to be modified on the basis of local experience.

In addition to the issue of evaluation, the extra costs required to support career ladder plans have been estimated as ranging between $5 billion and $8 billion (Odden 1984). These costs can be constrained somewhat by placing quotas on the number of teachers who qualify, but when quotas are imposed and filled, the incentive to excel is removed (Fox 1984).

Another problem that may arise in career ladders, Fox speculates, is that experienced teachers who are not chosen to advance on the ladder may not respond well to working with those who do advance. He also anticipates problems with parents who may object when their children are assigned to a teacher who is not at the top of the ladder.

The Carnegie Forum (1986) has proposed a system for determining who climbs the career ladder that addresses some of the problems associated with the first attempts to institute differentiated pay and staffing. The Forum's Task Force on Teaching as a Profession advocates the creation of a National Board of Professional Teaching standards to grant certificates to teachers.

> These certificates would attest to a high level of competence, determined through a rigorous national assessment process designed by the Board. Only in this way can state and localities compare the qualifications of teachers they might hire, irrespective of where those teachers were educated or previously worked. It is the same kind of standard provided by the medical boards or the multistate bar examinations.
>
> The Board would grant two certificates. The first, for Certified Teachers, would set a high standard for entry level teachers. The second, for Certified Master Teachers, would be intended for teachers who wanted to demonstrate exceptional teaching ability or who wanted to qualify for roles as managing teachers in the schools.
>
> A majority of the Board would be composed of teaching professionals and the general public.

> Eventually, it would, of course, be desirable that most teachers be Board-certified. But the Task Force does not envision that anyone would be compelled to be certified in order to hold a teaching job, any more than people who do accounting must be certified public accountants. Many districts, though, will be compelled to hire certified teachers by parents and members of the local business community who are concerned to have the best possible teachers for their district. And many states may well wish to offer incentives to school districts to hire board certified teachers, and are likely to find that they must take measures to assure that less wealthy districts have equitable access to this valuable resource.

One advantage to this "career ladder" is that teachers themselves absorb the cost of the evaluation and, assumably, would be happy to do so if it would be to their economic advantage (Leiberman 1957).

TEACHER SALARIES

Every reform proposal advanced since A Nation At Risk (1983) has included a call for increasing teacher salaries to competitive levels (Bird 1985). The evidence is clear that salaries are a major factor in the teaching crisis; "the salaries simultaneously deter many people from entering the profession and it is the reason many others leave it" (Futrell 1985).

Compared to other occupations, teachers' beginning salaries are low. The U.S. Department of Labor (1984) reports that the 1984 average beginning teachers' salary of $14,500 was almost $6,000 less than the average beginning salary for sanitation workers, $8,000 less than the average beginning salary for bus drivers, and almost $10,000 less than the average beginning salary for plumbers. Beginning teachers know what they will earn in the future and can see that long service carries with it limited financial rewards (Lortie 1975; Schlecty and Vance 1983).

Unlike other professions, teachers' earnings begin relatively high with respect to their ultimate earning potential. Teachers at the top of their salary schedule are likely to be relatively young professionally. Those who attain the top of their salary schedules -- after about fifteen years of service -- are only slightly older than doctors completing their residency. At precisely the same point that other professionals begin climbing toward their earning potential, the earning potential of teachers already has peaked.

Charles Manski (1985) developed an economic model to show that attracting brighter students to teaching would require salary increases. For example, his research suggests that if prospective teachers were required to score at least 800 (lower than the national average) on the SAT, it would require a corresponding pay increase of 10 percent.

Raising salaries to competitive levels, however, simply is "not likely to occur" (Fox 1984). Allan Odden (1984) points out that to raise the average

salary of all 2.1 million U.S. teachers to make teaching more financially competitive with other jobs that require college training would cost more than $20 billion. In addition, increasing salaries across the board would require rewarding all teachers, many of whom form the basis for the current concern over the quality of the teaching force. In other words, under this approach, taxpayers would be required to reward large numbers of current teachers in order to attract a few high quality teachers into the profession.

A more sensible approach to pay increases, many of the reform proposals argue (Bell 1984; Boyer 1983; Committee for Economic Development 1985; Carnegie Forum 1986; National Commission on Excellence in Education 1983; Shanker 1985; Sizer 1984), would tie the increases to steps on a career ladder. The "best and brightest" would advance on the ladder and stay in the classroom, rather than being the first to leave, as is now the case (Schlecty and Vance 1981).

DEREGULATION

Teachers' participation in technical decisionmaking and in the enforcement of professional norms is the cornerstone for educational improvement in the reform proposals advanced above. However, the proposals assume a level of autonomy and latitude for teachers and schools that may not sit well with policymakers (Darling-Hammond and Wise 1985, p. 334):

> The approach is risky for policymakers; it relies on people, and it relies on judgments. It places more weight on the development of client-responsive practices than on the definition of standardized practices. It assumes that those unable or unwilling to develop competence will be weeded out of the profession rather than have their damage controlled by prescriptions of performance. It assumes that others will become more capable by engaging in the joint construction of goals, definition of standards of good practice, mutual criticism, and commitment to ongoing inquiry. It assumes that investing in staff development, career incentives, and evaluation ... will improve the quality of service delivery.

But it is even more risky for states to continue to institute top-down, prescriptive teaching policies (Sykes 1983, p. 120):

> Administratively mandated systems of instruction not only hinder teachers' responsiveness to students, but over time discourage teachers from learning to be responsive, from developing sensitivity to individual differences, and from broadening their repertoire of approaches. Ultimately, such systems become self-fulfilling prophesies: routinized instruction, and the attendant loss of autonomy, makes teaching unpalatable for bright, independent-minded college graduates and fails to stimulate the pursuit of excellence among those who do enter. Over the long run then, the routinization of instruction tends to deprofessionalize

teaching and to further discourage capable people from entering the field.

This presents a dilemma for education: states are not going to provide increasing funding to schools without some say in how they are run; yet at the same time, statewide prescription and standardization have proven to be negative forces.

The solutions to this accountability dilemma advanced in the most recent proposals, most notably the Carnegie Forum report (1986), are to ensure the academic ability of the teaching force, ensure quality teacher training, and establish outcomes by which to measure the success of individual schools. All three of the solutions, however, are not without their own set of problems.

ENSURING QUALITY TEACHERS

If teachers are to be given more authority within the schools, something must be done to assure the public, policymakers, and administrators that they are capable of taking on that responsibility.

Given the frightening results of basic skills tests administered to teachers in recent months (Rodman 1985), it is no wonder the intellectual ability of the teaching force is in question. Ten percent of all teachers tested in Arkansas failed a basic skills test administered last year and nearly 30 percent of prospective teachers in California, after five years of higher education, cannot pass the California Basic Educational Skills Test the first time.

In addition, research clearly shows that the least academically able college students are enrolled in the nation's colleges of education (Sykes 1983).

The level of confidence about the intellectual ability of teachers is so low that even teachers, after decades of resistance to the notion, have endorsed the concept of across-the-board testing of new teachers prior to certification (Currence 1985). And the teachers are not advocating a basic skills test, but a rigorous professional examination similar to those required in law and medicine. Albert Shanker, who announced his support of such an exam last year, predicts that the test will promote public confidence in the teaching force and willingness to pay more for better quality.

Opponents of testing, however, argue that passing a test does not mean someone will be a good teacher. Studies have not found any consistent relationship between scores on teacher competency tests and measures of teacher performance in the classroom (Andrews et al. 1980; Ayers and Qualls 1979; Quirk et al. 1973). This should not be very surprising, since knowing the answer to a question that asks for a definition of a pedagogical principle does not necessarily mean that one knows how or when to apply that principle in the classroom in the midst of competing pedagogical demands. Indeed, not knowing the answer to such a question does not preclude the ability to respond appropriately in the classroom setting (Darling-Hammond and Wise 1985).

While the test may raise the status of the teaching profession in the eyes of the public, Linda Darling-Hammond and Arthur Wise conclude, such tests will not answer the question of how to upgrade the quality of teaching that occurs in the classrooms. They may reveal what teachers know about a subject but will not reveal whether they can teach it or, if they can, whether they will.

Other researchers suggest, however, that teacher intelligence may be a key factor in student achievement. The Coleman study (1966) found that the most significant school-related factor predicting student achievement was a teacher characteristic -- the teacher's score on a test of verbal ability. Teachers in the survey were given a thirty-question vocabulary test. After controlling for socioeconomic background and other student factors related to achievement, Coleman and his colleagues found that achievement was related directly to the verbal ability of teachers. Although verbal ability was related to the performance of all students, it was a particularly important factor in explaining the achievement of black students.

The predominant interpretation of this key finding is that verbal ability is a crude measure of general intellectual ability. According to James Guthrie (1970), "If the measure of verbal ability is taken to represent the general intelligence level of the teacher, the finding can be construed to mean that an intellectually facile instructor is more adept at tasks such as finding means to motivate students, adapting material to their ability levels, and communicating in ways which make the subject matter more understandable."

Research following the Coleman Report produced mixed findings on the connection between teachers' verbal ability and student learning. Eric Hanushek (1984) reviewed fifteen studies that included measures of teacher verbal ability and student performance. In fourteen of the fifteen studies, teacher verbal ability showed a positive relationship to student performance on standardized tests. But this finding was statistically significant in only one-third of the studies. Hanushek concluded "the only reasonably consistent finding seems to be that 'smarter' teachers do better in terms of student achievement."

Teacher testing also is one of the most common elements of state reform. At least twenty-two states have recently enacted laws or rules requiring standardized tests as a means to raise the standards for entry into teaching (Darling-Hammond and Wise 1985).

The popularity of this approach to reforms in teaching is alarming on at least one front: it has restricted the racial/ethnic diversity of the nation's teaching force (Garcia 1985). The eventual consequences of the problem may be incalculable (Rodman 1985). As the minority teacher slowly vanishes from the nation's classrooms, legions of minority-group children -- the fastest growing segment of the nation's youth population -- are poised to enter an education system that will be devoid of role models.

TEACHER TRAINING

All of the reform proposals released in the last year dealing directly with teaching indicate that colleges of education are crucial to the

development of teaching as a true profession (California Commission on the Teaching Profession 1985; Carnegie Forum 1986; The Holmes Group 1986).

However, the colleges of education suffer from the same lack of status and respect afforded teachers (Toch 1982). If teachers are to improve, the quality of their education must improve (Carnegie Forum 1986).

All three of the reports recommend that states deregulate teacher training, including course requirements and student teaching requirements; that the undergraduate major in education be eliminated in favor of rigorous post baccalaureate programs, including one full year of course work and a year of teaching residency; and that schools of education work closely with local schools in developing their programs and addressing school-based problems.

ACCOUNTABILITY

Once policymakers are satisfied with the academic ability of the teaching force and that teachers are receiving the kind of training that will prepare them for a decision-making role within the schools, measuring the outcome of teaching is the last step in accountability.

Measuring educational outcome, however, is one of the most serious challenges facing the reform movement today, and almost no state has devoted the resources necessary to mount such complex evaluations (Kirst 1985).

Although some educational reformers conceptualize teaching as a rational process where goals are clearly defined and the best means are (or should be) selected for achieving those goals, that concept is rarely shared by teachers and their close observers (Darling-Hammond and Wise 1981). Teachers conceive the outcomes of teaching to be diverse, long range, peculiar to each student, and difficult to measure. They strive to influence the whole personality of their students, not simply students' intellect. They expect to have the greatest effect not within the classroom but over time, as the children mature and develop. They anticipate that students will respond to their teaching as individuals, according to personality, motivation, and experiences. They concede that outcomes are difficult to measure (Lortie 1975; Cohen et al. 1983).

Clearly, measuring the success of education is a complex undertaking. To date, attempts to do so, such as the U.S. Department of Education's "Wall Chart," have met with criticism. "Policymakers must have varied and specific evaluations in order to forestall such simplistic judgment," concludes Michael Kirst (1985).

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BUILDING STATE STRATEGIES
TO ATTRACT AND TO RETAIN TALENTED TEACHERS

Prepared by Robert Palaich
Senior Policy Analyst
Education Commission of the States

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INTRODUCTION

Teaching is losing the battle for talented new recruits. Why? Among the main reasons are a perception that few teaching jobs are available, conditions within schools that do not foster a professional working environment, salaries that are too low to attract and retain good teachers, and the difficulty of measuring teaching success. To assure that minimum state standards are met and that educational opportunity is equal, states have in the past encouraged practices that constrained the creativity of principals and teachers and lowered the professional status of teaching. States can, however, reverse that trend and encourage teaching to become a more highly developed profession. But effective state action to recruit and retain talented new teachers will require an understanding of job satisfaction for teachers and support for effective teaching and effective school leadership.

In the discussions that follow, four major themes are developed. The first analyzes the need for new teachers to enter the profession. The second describes the parts of a professional job that make it satisfying. The third describes the points at which those considering teaching can be influenced, outlines state actions to date, and provides a preliminary evaluation of how effective those actions have been. The final section outlines a process through which Governors and other state leaders can design, implement, and institutionalize a set of policies that assure that the best possible teachers enter the profession.

THE NEED FOR TEACHERS

The present system is expected to produce new teachers during the next decade at the fairly constant rate of approximately 140,000 teachers per year according to the National Center for Educational Statistics (1983, 1985). However, the demand for new teachers, due to increased enrollment especially in the elementary grades, to continued high turnover during the first seven years of teaching and to a constant retirement rate, is projected to reach approximately 210,000 teachers by 1992. In 1983, state departments of education already reported spot shortages in bilingual education, special education, physics, and computer science.

Teacher graduates represented 34 percent of all college graduates in 1970 but only 14 percent in 1983, a decline of approximately 53 percent. At the same time, measures of the academic ability of those who major in education also have declined. SAT scores, ACT scores, National Teacher's Exam scores, and the Graduate Record Examination scores all have registered significant declines for prospective teachers (Weaver 1983; Schlechty and Vance 1981; Lanier 1984). No longer do large numbers of academically able women and minorities enter teaching because other careers are closed to them. Further, fewer teachers who leave teaching now return to it later. In 1966, more than 50 percent of those who left the classroom came back to teaching; in 1983, fewer than one in four returned.

Some of the nuances are as important as the rather grim overall statistics. Linda Darling-Hammond (1986), summarizing points many other researchers make as well (such as Weaver 1983; Williams 1983; Sweet and

Jacobson 1983; Schlechty and Vance 1983; NEA 1982; Masland and Williams 1983; Dearman and Plisko 1982; Lanier 1984), paints a more detailed picture of supply. Making up the teaching force are new entrants, teachers reentering the classroom, continuing teachers, and teachers moving into a new teaching setting from a previous teaching job. Entrants come from two general sources: graduates of teacher training programs and people who enter teaching from a different occupation. Reentrants are, of course, former teachers who return to the classroom. Continuing teachers are those who were teaching in a previous period, minus the people who switched to nonteaching jobs, retired, died or became disabled, or took another teaching position in a different district. Estimating the number of teachers in any of these categories of teacher supply is difficult, but new state and national estimation efforts are beginning to address these difficulties.

In some respects, estimating the demand for teachers is easier than estimating the supply, though estimating turnover may be even more difficult. The major determinants of demand are the size of the teaching workforce, as defined generally by student enrollment and attrition. The Condition of Education (1983, 1985) and other national studies provide ten-year projections of student enrollment; two variables to watch are birthrates and parents' decisions to send their children to private schools. Attrition, of course, is affected by how many teachers are reaching retirement age. Also important are attrition rates for beginning teachers, which some researchers say are as high as 50 percent during the first seven years (Vance and Schlechty 1982). General economic forces influence the attractiveness of teaching. So do federal, state, and local policies, like whether credit for experience transfers from one district to the next or whether internship programs have been established for beginning teachers. A final factor that affects attrition is school organization: if the traditional arrangement of assigning a certain number of pupils to one teacher in one classroom ever changed, the demand for teachers (or for specific types of teachers) could change radically. Such changes have been seriously proposed by several commissions and task forces during the past year.

Given this general outline of teacher supply and demand, it seems clear that certain policy decisions, at least in the short term, may not be made with hard data. Following are what several people who have studied the subject consider important.

Would Changing Certification Standards Attract Talented Teachers?

During the past two years, policymakers have developed a skepticism regarding the effectiveness of enacted teacher certification standards. Every state has several requirements for initial certification and almost three of four have raised those requirements during the past three years. In contrast, about half the states have begun to focus efforts on applied internships and provisional certification and on relaxing initial requirements to allow interested and qualified persons into the classroom. This ambivalence toward the effectiveness of traditional certification requirements in developing good teachers is why states are moving away from simple strategies, like adjusting certification requirements, to influence teacher quality.

The typical person may never really see a shortage of teachers. Chief state school officers, state departments of education, and school superintendents have several ways to assure that no classroom goes without a teacher. They can increase class size, ask teachers to teach outside of their area of certification, waive certification requirements for new teachers, or otherwise relax hiring standards. Although no shortage would be visible to the untrained eye, within a period of time, instructional quality could decline. Substitutions are already taking place on a limited scale, and they could assume epidemic proportions during the next decade (Carnegie Forum 1986; the California Commission on the Teaching Profession 1985; Lanier 1984; Schlechty and Vance 1983a; Weaver 1983). The concern is not only that there will be an absolute shortage of teachers but also that school, district, and state decisionmakers will lower standards to solve the shortage problem.

If one defines the teacher shortage by the number of teachers who are teaching subjects they are not certified to teach, the magnitude of the shortage jumps considerably. In 1983-84 3.4 percent of teachers taught outside their fields, a figure that rose to 12.4 percent of newly hired teachers (National Center for Educational Statistics 1985a). Using somewhat tighter criteria, the National Education Association (1982) reported as many as 16 percent of all teachers teach some classes outside their primary field of certification.

The California Commission on the Teaching Profession and the Carnegie Forum on Education and the Economy, both take up the issue of certification. Both reports question the proliferation of "horizontal" areas of certification and the absence of "vertical" categories. Both urge consideration of making a teaching residency to assist beginning teachers a requirement for a clear credential. They urge the establishment of a board-certified classification for teachers who aspire to it, and they question whether the current system of certification is tied closely enough to the skills classroom teachers need.

Is The Shortage Similar From State To State?

Darling-Hammond (1986) and others question whether national trends are replicated in particular states and districts. Until recently, states have generally had only gross estimates of teacher supply and demand. Howe and Gerlovich (1982) estimated math and science shortages. In February of this year, Rydell, Gage, and Colnes (1986) produced a technical report for the Joint Standing Committee on Education in Maine titled "Teacher Recruitment and Retention in Maine." One of the major conclusions of the study is: "Teacher turnover rates in Maine are not generally high. Problems are confined to specific subject areas and to certain geographic areas of the states." Clearly statewide policies built on nationwide trends will not necessarily meet personnel needs in schools and school districts.

Will People In The "Reserve Pool" Be Lured Back Into Teaching?

The concept of the "reserve pool" of teachers has received considerable attention, especially in work carried out at the National Center for Educational Statistics ("Condition of Education," 1983 and 1985; "New

Initiatives," 1985a). It is clear that the number of people who return to the classroom once they have left teaching has declined significantly.

In a recent survey, conducted by Harris and Associates (1985) for the Metopolitan Life Insurance Company, former teachers were asked, "What were the main things that caused you to leave teaching?" Sixty percent of the 500 teachers queried cited low salary, 36 percent cited working conditions, 30 percent cited student-related problems, 30 percent cited administration-related problems, 27 percent cited emotional aspects of the profession including boredom, stress and frustration, and burnout, 17 percent cited lack of respect, and 16 percent cited parent- and community-related concerns. Those same teachers were then asked, "What would it take to get you to return to teaching?" Fifty-two percent cited better salary, 22 percent cited better working conditions (more input into school decisions, smaller classes, and fewer extracurricular duties), 13 percent cited more control over their jobs, benefits, and careers, and 9 percent cited the need for changes in administration. This squares fairly well with what Rydell, Gage, and Colnes found in the Maine study (1986), except that salary was a smaller consideration for Maine teachers.

Another approach that could lure some people back to teaching is the availability of a part-time position. In some districts, a small group of substitutes have become adjunct part-time faculty, freeing staff time for organizational and instructional consultations. Whether states, districts, and schools can entice the best of the reserve pool back into teaching by addressing any of these concerns remains to be seen.

How Do Schools Make Teaching More Or Less Attractive?

Historically, schools have fostered teacher isolation and have not encouraged teachers to develop shared values about their work (Lortie 1975). Today, schools face a much more complex task: they are expected not only to help students reach traditional achievement goals but also to provide social services to help students become ready to learn. Rosenholtz (1985, 1986), Bird and Little (1983), and Bird (1984) have closely examined the organizational context of teaching and how it contributes to the attractiveness of the profession. They argue that the isolation of teachers, the lack of collaborative work, and the lack of career development all make working in schools less attractive than working in other professions.

Who Decides to Enter Or Leave Teaching?

As Darling-Hammond (1986) and Palaich and Flannelly (1984) point out, when examining the flow of individuals into and out of teaching, it is important to picture this migration as a collection of individual decisions. A successful program matches incentives to individual needs. Schools, districts, and institutions must be recruited to implement the program, but the individuals must respond to the initiative for it to be successful. For example, higher salary is a weaker incentive for someone from a two-income family than for someone who is single or the sole provider for a family. How people respond to state policy incentives depends directly on how well their individual interests, traits, and circumstances match the incentives.

Summary Of Policy Considerations

State policymakers interested in attracting and retaining good teachers should keep the following points in mind:

- o If current trends continue, a considerable teacher shortage will develop during the next decade. The demand for teachers will outpace the production of new teachers and the return of teachers to the classroom by 20,000 to 50,000 teachers per year over the course of the decade. Most experts agree that few states will follow the national trend, and that state shortages will vary considerably by region and by subject area specialization. The foregoing analysis of the supply and demand for teachers indicates the complexity of estimating the need for teachers accurately. However, it also identifies the following points of intervention for state policy: entry into teacher training; entry into teaching from teacher training, entry into teaching from another career, reentry into teaching, and the move from one school to another.

- o Left unchecked, the teacher quantity problem is likely to exacerbate a teacher quality problem. States and districts have the power to generally relax standards and to waive specific requirements for specific individuals in shortage areas. Even as a second wave of national reports is calling for higher professional standards, school decisionmakers may well exercise their prerogative to make exemptions to the personnel requirements to make sure there are no empty classrooms.

- o At least in the short term, the public may not notice. The subtle yet real distinctions between excellent teaching and substandard teaching are not likely to be evident to the community at large. As a consequence, the public is likely to support stronger professional standards for teachers only after policymakers make it an issue through their leadership.

- o Attracting well-qualified individuals into teaching requires changing the behavior of the individual and of the school organization. Changing individual behavior is difficult; changing organizational behavior is even more difficult. Unfortunately, changing the behavior of individuals is not enough, illustrated by the fact that the brightest teachers are the ones most likely to leave the classroom during their first few years of teaching. Frustration with the organization of the school often contributes to their early departure.

ELEMENTS OF TEACHER JOB SATISFACTION

State policies will not attract new, well-qualified individuals to the classroom unless those policies are based on a better understanding of teacher job satisfaction. The information presented in this section is taken from three sources: theories that explain job satisfaction, theories that describe organizational influences on an individuals's job satisfaction, and summaries of surveys of teachers.

Individual Motivation and Job Satisfaction

What constitutes job satisfaction in a profession? Most discussions of employee motivation and job satisfaction can generally be traced back to the work of Maslow (1954) and Herzberg (1966). Maslow postulated a hierarchy of five types of human needs that must be satisfied for personal contentment: physiological needs, safety needs, human relationship needs, self-esteem needs, and job-related achievement needs. Herzberg expanded on Maslow's theory by saying that meeting only the lower order needs (physiological needs and safety needs) is not sufficient for high and sustained job performance and satisfaction. Further, he distinguished the "extrinsic" aspects of job satisfaction from the "intrinsic" aspects. Extrinsic factors are those that, if absent, will cause job dissatisfaction, but if present, will not necessarily lead to job satisfaction. Intrinsic factors are closely associated with Maslow's higher level need for job-related achievement. Advancement opportunities, job content, and opportunities to exercise responsibility are all intrinsic elements. Both Maslow and Herzberg recognized that the organization of the work place is an important mediating factor in job satisfaction.

Most recently, researchers have tried to find out why teachers choose to enter teaching and why they stay in it. Lortie (1975) described five "attractors" to teaching:

1) Teachers chose their profession because they like to work with people;

2) They think teaching is a valuable service of special moral worth to society;

3) They desire to remain in the educational setting, one in which value is placed on developing ideas and communicating this information to others;

4) They seek certain material benefits, economic security and social status. (Although viewed as being under-rewarded, teaching traditionally has offered a benefit package to people with limited employment opportunities, like women and minorities. This situation has changed dramatically in the last three decades and is a primary contributor to the present shortage); and

5) They like the unique work schedule found in teaching.

The relationship between motivation and the teaching environment has important implications for designing policies to attract and retain high quality teachers. First, the value people assign to the results of their efforts and whether those results actually occur are critically important to motivation. This suggests that effective incentive systems offer rewards in areas valued by the individual. For example, if a teacher works in a school that uses a discipline policy the teacher disagrees with, it is likely the teacher will be less motivated generally. Second, teaching attracts people with a strong commitment to helping others, which suggests that policies

should emphasize the nobility of the calling. Finally, policies must balance intrinsic rewards, paying particular attention to the organizational context in which teachers seek these rewards.

Organizational Inducements to Teach

Teachers are ultimately the means by which all other school resources are managed and distributed. Although many authors have examined the relationship between school organization and teacher commitment (Ashton 1983; Little 1983; Miskel et al. 1983), Rosenholtz, Bassler, and Hoover-Dempsey (1986) provide one of the best summaries of thinking on the topic. They argue that participants are motivated to remain within an organization and to contribute productively only as long as the inducements offered to them are as great as, or greater than, the contributions they are asked to make. Rewards flow directly from feelings of efficacy -- that is, from feelings of independence or worth and from the recognition and approval offered by other people in the organization. Most teachers get their strongest rewards from successful relationships with students and a sense of their own capacity to affect student development. Poor relationships with students and students' lack of academic progress are therefore major sources of teacher dissatisfaction. (Whether this dissatisfaction causes teachers to leave teaching or to stay where they are, withholding service and lowering their expectations, it has grave implications for the education students, especially at-risk students, receive.) The authors conclude that these variables that affect teachers' commitment, although difficult to control, are subject to policy manipulation and change.

That conclusion has several policy implications.

- o Any effort to recruit talented teachers, however successful, does not ensure good instruction if the school as a work place frustrates teachers more than it rewards them.

- o The absence of satisfactory career growth in teaching reduces the contribution teachers are willing to make and their ability to make them. That is, to compensate for a lack of organizational inducements, teachers lower their professional expectations or simply withhold service.

- o It is possible to identify aspects of school organizational behavior that encourage teachers to contribute to student learning. For example, principals who are confident of their teachers' ability may share authority with teachers.

In short, individual abilities and collective action combine snyergistically to produce effective schools. Requisite to that process, however, is strong administrative and collegial support for practices that enhance teachers' development, teachers' conviction that what they are doing makes an important difference to students, and opportunities for teachers to increase their sense of success by sharing psychic rewards with colleagues (Rosenholtz et al., 1986, pp. 23-24).

What Teachers Are Saying

Teachers have not been entirely silent in the current debate over educational reform. In several recent surveys that have shared some of their views (Koppic, Gerritz, and Guthrie 1986; Gallup 1984 and 1985; Harris and Associates 1984 and 1985; and National Education Association 1982); much of this information is summarized by Richard Mills and Dennis Stout (1985).

One of the few signs of professional well-being in teaching is the respect teachers have for one another. Approximately 90 percent feel that their colleagues are good teachers (Harris 1984). Unfortunately, in many areas, there is a significant gap between what teachers feel is important and what the work place provides. Eighty-seven percent believe they would learn from observing other teachers, but only 6 percent do so regularly. Seventy-seven percent feel they would benefit from being observed by other teachers, but only 3 percent are observed. Ninety-two percent would like assistance from other teachers to solve teaching and discipline problems, but only one-third receive it. Ninety-three percent would like time during the workday to consult with other teachers about professional matters, but only 14 percent currently have that time (Koppic et al. 1986).

Although teachers look to administrators, particularly to principals, for recognition (NEA 1982), they do not feel they receive enough help from principals in solving discipline problems and in overcoming barriers to constructive interaction (Koppic et al. 1986). Poor or inconsistent administrator support is a pressing concern of teachers, often making them more favorable toward their schools generally than toward the people who run them (Gallup 1984). Further, teachers feel overburdened with nonteaching tasks, especially excessive and unorganized paperwork, administrative duties, and student monitoring duties (NEA 1982; Harris and Associates 1985).

Teachers prize professional autonomy but also would like to contribute to decisionmaking within the school. Most teachers feel they have considerable influence in planning daily teaching assignments, developing a personal teaching style, and adapting curricular standards to the educational needs of their students. The overwhelming majority are pleased with the flexibility they have in deciding how to teach, and are personally fulfilled in the use of these talents (NEA 1982). Autonomy outside the classroom is a different matter, however. The Koppic et al. study (1986) illustrates how little influence teachers have over school decisions. Ninety percent think they should have the right to participate in decisions about what should be taught in their school, but only 41 percent actually have the opportunity to do so. Ninety-eight percent feel that should work with administrators in setting school discipline policy, yet only 42 percent are involved. Ninety-eight percent would like their preferences to be considered in making teaching assignments, but less than half say that such is the case; 78 percent think they should be included in the selection of new teachers, but only 15 percent participate at present.

In summary, teachers feel limited in their ability to realize certain professional goals. They lack the opportunity to participate in school decisions. They desire more productive and fulfilling relations with their

peers. They find little correlation between their professional expertise and their actual classroom experience (Koppic et al. 1986).

Summary

Though it is an oversimplification to summarize the issues raised in this section in three short paragraphs, policymakers must keep points like these in mind when considering policies to make teaching a more attractive profession:

- Devising an incentive scheme to attract and retain high quality teachers is a complex undertaking. Intrinsic and extrinsic rewards should be balanced, as should personal and organizational goals.

- It is likely that providing organizational inducements will be more effective in creating a more attractive profession than providing incentives to individuals.

- If policymakers decide to provide inducements to individuals, inducements must match individual needs and must be offered at times when potential teachers are at the crucial decisionmaking points.

HOW EFFECTIVE ARE CURRENT STATE STRATEGIES?

States can use two basic strategies to make teaching more attractive. The first strategy is to set up targeted incentives and requirements for individuals at a decision point and encourage them to choose teaching. The second strategy is to change the organizational context in which teachers work. Neither strategy is easy to accomplish. Both have quite different advantages and limitations. In the end, they also serve different goals. A closer examination of the two strategies reveals why.

Strategy One: Incentives and Requirements for Individuals

From the literature on psychological motivation and job satisfaction, it is clear that policy, if it is sophisticated enough, can place incentives and requirements in front of individuals so that entering the teaching profession becomes more attractive than other alternatives. But effective policy must solve three substantive problems.

The first challenge is to make the mix of incentives and requirements strong enough yet flexible enough to actually influence an individual's behavior. For instance, a scholarship or loan program that offers, say, $500 a year probably does not constitute an incentive large enough to cause a change in individual behavior. Similarly, a state that establishes a minimum salary for beginning teachers at a level below the statewide average for beginning teachers is not likely to cause many more people to enter teaching. A second challenge is to design a program that responds to the diversified interests and needs of people who might teach. For example, a beginning teacher assessment program that uses different assessment models and feedback techniques to those who teach different subjects and grades. The final challenge is to match incentives to the needs of individuals interested in teaching. For example, focusing bright, college-educated people who have

worked in another profession to return to an undergraduate training institution for a teaching certificate puts them under a great deal of psychological and financial pressure.

The traditional source of beginning teacher training programs are colleges and universities. This sort of new teacher faces two major decisions. The first is the decision to enter the teacher training program; the second is the decision to take a teaching job (the traditional route). A second source of new teachers is people who have pursued other careers and then decide to enter teaching (the alternate route). For the most part, they have no undergraduate training in education and they do not have a teaching certificate when they decide they want to teach. The third key decision period focuses on former teachers returning to the classroom. Finally, there are the teachers who move from school to school. In order to offer effective incentives in these last two decision areas, close attention will have to be paid to restructuring the work environment of the school. In the sections that follow, the effectiveness of policies recently implemented by states in each of the four areas is examined.

First-Time Teachers: The Traditional Route

Entering teacher training. The vast majority of those who will enter the classroom this fall as first-time teachers decided to enter teacher training as undergraduates. We know several things about why students choose teaching at this time. A study of high school juniors and seniors (Mangier and Kemper 1984), tells us some of their reasons: interest in working with children, knowledge and skill in a subject area, and interest in a subject area. The reasons students decide not to go into teaching include low salary, lack of respect from students and the public, and lack of opportunities for advancement. We also know that decisions made during the undergraduate years are based on limited knowledge about the world of work and on experience in the classroom that is limited to being a student.

Many states have already altered the requirements for entering teacher training. For instance, twenty-nine states require tests of students seeking entrance to training programs. Many states and institutions have raised grade point average (twenty-seven states) and course requirements for these students. States also have altered inducement. More than forty states offer some type of scholarship or loan to college students who are interested in teaching. However, the effectiveness of these programs has been questioned by several authors, including I.K. Spero (1986) and David Arfin (1985):

- Preliminary evidence indicates that these programs attract only people who would enter anyway. The programs do seem to be effective in redirecting those inclined to teach to identified shortage areas.

- The ability to pay for undergraduate education is not the crucial factor in the decision to enter teaching, especially given the career earnings teachers forego and the current working conditions in schools.

- The incentives most loan forgiveness programs provide may not be large enough: people who were uninterested in teaching to start with are still uninterested after viewing the incentive. Evidence suggests,

however, that larger or more liberal loan programs would affect only a few people at the margin. Those who have studied loan forgiveness programs in other fields (Arfin 1985), argue that repayment provisions must be strictly enforced; if potential recipients think that repayment can be avoided, they will try.

- o Scholarship programs that target the academically able do tend to bring people who typically do not choose teaching into teacher training.

Further, states that are serious about attracting more talented people into teacher training should consider other recruitment strategies. One possibility is a teaching service program that identifies potential teachers early, makes classroom observation and evaluation part of the training process, and enforces commitment without exception. The ROTC program is a model that has been successful in attracting more capable people into the armed forces. The University of North Carolina runs such a program complete with student stipends.

The quality of teacher training affects the desire to be trained. Schools of education are working to sharpen what they teach and to improve their image within the university community. Meanwhile, several recent reports -- the Holmes Group Report (1986), the Carnegie Forum Report (1986), and the California Commission Report (1985) -- have called for states to discourage institutions of higher education from providing undergraduate training for teachers. This change will not occur soon, for a variety of good reasons. But states can encourage institutions of higher education and school districts to work together to prepare teachers through an apprenticeship experience (see Vermont's Education Trust Fund).

Entering the classroom. Once students complete teacher training, they still must decide whether they will become fully certified and begin teaching. As at every point of intervention, the state can provide incentives or require people to meet certain standards. States have, in fact, been very active in increasing certification requirements during the past few years. A few states have tried to make teaching more financially rewarding. Initial classroom experiences are also very important in this decision. At present, classroom observation and student teaching, though costly, do not give prospective teachers nearly enough feedback. States, institutions of higher education, and schools therefore should reexamine their efforts to work with beginning teachers.

Indications are that prospective teachers today are likely to consider starting salary, career earnings, and career development opportunities when they decide to enter the teaching profession. More opportunities for women and minorities in other occupations, the higher cost of college, and American society's continuing emphasis on material success all make these considerations important. Unfortunately, we know relatively little about which of these factors influence teacher career choices and to what extent. G.A. Zarkin (1985) found evidence that elementary teachers are more likely to be influenced by starting salaries and job security than secondary teachers, who are more likely to view the trade-off between teaching and other professions in terms of long-term career earnings.

If the state is interested in intervening at this point, action in three areas seems worthwhile. First, the pressure to raise the standards for entering the teaching profession should be maintained. (It is important to note that many present "standards" take the form of tests that only partially relate to teaching performance. More effective standards have been called for in recent reports and research.) Raising standards is likely to diminish the supply of teachers in the short term. But if the goal is to attract well-qualified teachers, there is no way to avoid this temporary dislocation. It is clear that higher salaries will attract additional teachers, though it is not clear that such salaries will keep them. States that have raised certification requirements will truly have to consider this option. Third, strong programs for mentoring and assessing beginning teachers could encourage them to stay in teaching -- and make all new teachers better teachers (about half the states already are moving on this point).

First-Time Teachers: The Alternate Route

For people who did not prepare for a teaching career but are considering teaching, trying to become a teacher can be frustrating. Even people who have degrees in appropriate subjects must typically go back to school for at least a year, and pay for that retraining, only to find that much of this training does not build on their experience. Many of them are appalled by the lack of specificity and guidance provided in the courses they take. States, schools of education, and school districts are not experimenting with ways to overcome the obstacles to career crossover. In fourteen states, state officials and schools of education have streamlined the curriculum for crossover and have designed programs to group this sort of prospective teacher as they move through training. In California, New Jersey, and Texas, the cooperative effort is between state officials and school districts. Generally, a prospective teacher must have a recommendation for hiring from a district and must pass a subject area examination before he or she can enter the classroom. It then becomes the district's responsibility to provide appropriate additional training. It is unclear how many people would use the alternate route. In New Jersey, where such a program has been in place since September 1985, 188 alternative route candidates had been approved as of June 1986.

For the most part, removing the barriers that keep people in other professions from entering teaching requires redesigning training to make it less demeaning. Several recent commission reports make recommendations that have implications for this group of potential teachers, in particular recommendations for the establishment of board certification and of paid internships. But it is still likely that designing alternative routes into teaching will not attract more and better people into the profession until the teaching work changes.

Former Teachers: The Reentering Teacher

In a survey of former teachers (Harris and Associates 1985), the authors painted a profile of former teachers who might return to the classroom, 17 percent of their sample, with teachers who are unlikely to return. The teacher likely to return is "female; worked at the elementary level; left less than two years ago; never received a reward for teaching but was satisfied

with teaching as a career; did not hold a second job while teaching; and has a household income that is now under $40,000 per year." The teacher who is unlikely to return tended to be "male; worked at the secondary level; left four or five years ago; held a second job while teaching; and has a household income that is now over $40,000 per year" (Harris and Associates 1985, p. 38). Former teachers further report satisfaction with their new jobs at greater than 96 percent. Luring these teachers back to the classroom will not be easy.

Since teachers often mention salary as a reason for leaving or considering leaving the teaching profession (Koplick et al. 1985; Harris and Associates 1985; Harris and Associates, 1985a) states might entice them back by offering competitive wages. The other improvements that are needed include better working conditions, more input into decisionmaking, more respect for teachers, and more opportunities for part-time positions and for professional growth. Although these are issues that districts and schools will have to resolve, states can encourage change in these areas. Since solutions to these problems will vary from district to district and school to school, it is important for states to refrain from a regulatory response. But it is important that states let districts and schools know that improved working conditions and school decisionmaking should be high priorities.

Former Teachers: Those Who Move From School To School

Currently few teachers move from school to school. The ones that do tend to have relatively little experience and move because their spouses move. Moves within districts tend to be governed by seniority and by personal loyalty. Moves across district lines tend to be regulated by state policy and district bargaining agreements. Unlike the other individual decisions reviewed here, the decision to move from school to school is highly regulated. There are rules governing certification and rules defining the portability of pensions across state lines; most districts have rules concerning credit for years of experience. The net effect is to encourage teachers to stay where they are even if that means teaching outside their fields within their current district and school rather than teaching within their fields in a another jurisdiction. Real financial hardships are likely to follow decisions to switch schools.

To encourage the migration of teachers from school to school and district to district, states can simply relax some of the state restrictions already in place. States should study the issue of pension vesting and teachers' ability to carry a portion of pension funds with them to a different district. States should retain initial certification requirements. But, as states and/or national boards establish higher levels of certification, the state should recognize those levels rather than requiring every teacher to meet its own initial certification requirements. Further, states should encourage districts to consider the role that experience and training play in local compensation systems. Districts also should be encouraged to collapse experience into four or five broad categories and allow individuals who move across district lines to retain credit for experience within these categories. Districts also should be encouraged to set up a compensation system that rewards staff development activities central to school objectives substantially more than individual objectives. For example, if a district has

decided to use the Hunter method for training its teachers in classroom management, then the teacher who takes the training should progress to a bonus situation faster than one who takes an equivalent amount of course work at the local college. This is due not to the fact that the quality of the development activities varies but to the centrality of the former to schools' objectives.

Summary of Policy Considerations

The state must decide at which decision points to intervene, and choose incentives and requirements that address those decisions. The key points of intervention include:

- o The traditional route to the classroom
  - -- The decision to enter teacher training
  - -- The decision to enter the classroom
- o The alternative route to the classroom
  - -- The decision to change careers and enter teaching
- o Former teachers
  - -- The decision to return to the classroom
  - -- The decision to change schools and/or district

The policies reviewed here have been limited to those that influence individuals who already are thinking about entering, reentering, or continuing in the teaching profession. They are not likely to generate a great deal of interest from people who are not currently considering teaching. To attract a broader group of individuals to the teaching profession, how teaching work is carried out must change in major ways. This second strategy is taken up next.

Strategy Two: Rethinking How Schools Function

"Those who can, do; those who can't, teach." With this as a commonly held view, the amazing thing is that anyone ever elects to go into teaching. Within the general public, the number of people who would encourage their children to enter the teaching profession has dropped significantly during the past fifteen years. Even teachers themselves currently share this view of the profession. Fully 35 percent have indicated that they would not have gone into teaching if they had known at the beginning what they know now (Gallup 1985; Gallup 1986). Further, about one of every two teachers advised their own daughters not to enter teaching, and five of eight advised their sons not to teach. This attitude toward the teaching profession has resulted from many factors. Two of the most debilitating have been the increasing bureaucratization of schools and poor working conditions.

Because of bureaucratization, teachers and principals make fewer and fewer decisions. It has brought a sense that somewhere a regulation says: "I should not engage in this activity." Increasingly, teachers and

administrators report that they no longer understand the overall goals of the system or how implementing a particular directive pushes them toward any goal. This is particularly unfortunate because teachers are the system's link with students, and their aimless attitude is passed to them.

The school as a work place has changed dramatically during the past fifteen years. Changes in society have presented schools with students who have more than the traditional academic needs. Children today have intense needs for social services and learning readiness, needs that have gone unmet at home. These needs put great pressure on professional school staff. Teachers know that unless some of these special needs are met, students are not likely to succeed academically. They also know that society wants more accountability from teachers and schools -- and that the public measures accountability by student achievement scores.

These two trends have caused teachers to focus even more sharply on problems of school leadership and mission, school decision-making structure, the use of professional staff time, and accountability (National Teachers Forum 1986):

- o Definitions of a quality education will vary significantly from district to district and from school to school, but the lack of a defined mission is the death toll for a school. In the absence of goals, accountability and evaluation are worthless exercises that do not contribute to the development of the school. Leadership is necessary to allow effective goal-setting.

- o In a professional decision-making structure, there is great reliance on front-line professionals. They decide how to allocate resources and how to match services to clients. These front-line professionals are not independent agents, however. They thoroughly understand and promote the mission of the organization. A call for major changes in the decision-making structure in schools is not a call for laissez-faire or leadership by committee; it is a call for delegating responsibility.

- o Teachers' complaints about the use of their professional time generally fall into four categories. They feel they spend too much professional time "babysitting" students. They spend too much time on paperwork, i.e., managing of information for reporting purposes. They lack time to work with other teachers on individual student needs and on schoolwide projects; they lack time to prepare for teaching particular groups of students. The misuse of professional time has major implications for how well a school is run and how effectively professionals contribute.

- o Assessing the use of professional time, the appropriateness of professional decisions, and the effect on students requires the use of evaluation instruments. But evaluation is possible only where the mission of an organization has been clearly delineated. For example, an evaluation instrument developed by the state will help a particular school or district only when the goals of the school or district

substantially overlap the goals that the evaluation instrument was designed to measure.

Several reports released during the past year have begun to suggest ways to solve these problems [the Carnegie Forum report "A Nation Prepared" (1986), the California Commission report "Who Will Teach Our Children?" (1985), the Committee for Economic Development report "Investing in Our Children" (1985), the Holmes Group report "Tomorrow's Teachers" (1986)]. For all their different methodologies and different strategies, these reports express a considerable degree of consensus.

In the schools of the future, professionals will have a better understanding of school goals and will know how they can contribute to achieving them. Status differences between principals and lay teachers will be sharply reduced; status differences among teachers will grow. The school decision-making structure will be substantially less bureaucratic; it will encourage professionals to shape the way school goals are reached. Teachers will work together to make curricular decisions and to sharpen their teaching skills. The norms within schools will change from "Don't look" to constant evaluation and renewal. The responsibility for the effectiveness of schools, now tightly held by boards and administrators, will be distributed to professionals within the schools. School professionals will have more responsibilities for school outcomes and more control over how those outcomes are achieved. Further, teachers as a group will exercise more control over their profession by setting stringent board certification standards.

Summary of the Alternate Strategies

If the school reform is to succeed in districts and schools, major changes will have to occur in how the school work is accomplished. Teachers, school administrators, and teacher trainers must devise ways to work together to deliver high quality teaching to children. School boards must work to establish or reestablish trust with administrators and teachers. Occasions will arise when students and parents do not feel comfortable with the educational and/or disciplinary program offered by a particular school. In these instances, districts must help parents relocate their children, in a different school or a different program.

States can encourage these changes by employing the two strategies described above. First, targeting incentives and requirements toward those at the point of deciding to enter teaching. This means identifying how many of those individuals exist in each area, deciding which areas should be targeted, and designing a package of incentives and requirements that meet the needs of the persons making the decision. Second, moving from the trust-no-one, regulate-everyone approach to one that allows schools and districts to set their own directions. To use this approach successfully, states must be very clear about the criteria they will use to measure school and district success. Only in this way will they be able to make the transition from top-down management to encouraging local creativity.

WHAT STATE APPROACH IS MOST EFFECTIVE?

Many people argue that the most talented college graduates will not enter the teaching profession until the ways schools operate have changed fundamentally. Others argue that such changes will not come about until the schools are filled with talented teachers, because those are the teachers who will lead the profession in the demand for higher standards and more participation. What we argue here is that states must provide incentives and requirements for individuals and also incentives to change organizational structure; to attempt one strategy without the other is counter-productive. A comprehensive state plan should be based on a thorough understanding of how states are most likely to attract the largest numbers of well-qualified teachers -- and on an understanding of how schools should function.

The following steps should be taken in putting together a state plan to address these problems:

- o Establish a vision for how public schools in your state will operate in the future. This vision must be the cornerstone of education reform in the state for the public and educators.

- o Decide on which of the major individual decision points the state should focus. The key question is which decision point will yield the largest number of talented teachers.

- o Once the decision points are chosen, put together packages of incentives and requirements that address the needs of individuals making each decision.

- o Make sure information on the new vision and the targeted packages get into the hands of potential teachers.

- o Acknowledge that schools are the places where the new vision must be implemented. However, state and district offices should play an important role in facilitating the process of change.

- o A comprehensive state plan that encourages school change through a focus on school improvement and provides a targeted package of inducement to potential teachers is the approach most likely to succeed.

- o Do not underestimate the need for leadership. The present system, leaderless and bureaucratic, tends to be preoccupied with its own momentum rather than with its own renewal. Only through sensible, strong, and sustained leadership can states make a difference in the school of the future.

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PART THREE: Additional Resources

ADDITIONAL SOURCES

The reader who wishes additional research information and resource material is referred to the sources listed below.

ERIC Clearinghouse on Teacher Education

The clearinghouse has established a data base of relevant articles, papers, publications, and materials on topics relating to school personnel at all levels; teacher selection and training, preservice preparation, and retirement; the theory, philosophy, and practice of teaching; curricula and general education not covered by other clearinghouses; and all aspects of physical education, health education, and recreation education.

American Association of Colleges for Teacher Education
One Dupont Circle, NW
Suite 610
Washington, DC 20036
(202) 293-2450

The resources listed below are funded and coordinated under the auspices of the U.S. Department of Education's Office of Educational Research and Improvement.

Center on Teacher Education

The National Center on Teacher Education seeks to generate new and useful knowledge about what prospective teachers need to know in order to be effective in the classrooms. The center focuses on four critical tasks related to instruction: 1) clarifying the skills, knowledge, and dispositions required of teachers for effective academic instruction; 2) studying how teachers acquire this knowledge and how their learning might be improved; 3) studying the character and quality of teacher education programs; 4) learning from efforts to reform teacher education and studying effective modes of change. The center has been working on a long-term study of teacher education, inservice education, alternatives to undergraduate teacher education, and teachers' learning styles.

Michigan State University
College of Education
Erickson Hall
East Lansing, MI 48824
(517) 353-1716

Center on State and Local Policy Development and Leadership

The center's mission is to produce research useful to policymakers and their constituents, focusing on the relationships between policy and central concerns of education: teaching, learning, school organization, and student performance. The center seeks to strengthen the connections among policy, practice, and performance, gathering information about a range of educational policies and evaluating policy options. The major projects of the center have

sought to link policy practice and efforts, study emerging strategies and structures, gather educational indicators, and disseminate information.

Rutgers, The State University of New Jersey
The Eagleton Institute of Politics
Wood Lawn, Neilson Campus
New Brunswick, NJ 08901
(201) 828-2210

Center for Effective Elementary and Middle Schools

The center's mission is to provide research about how elementary and middle schools can foster growth in student learning and development, to develop and evaluate practical methods for improving the effectiveness of elementary and middle schools based on existing and new research findings, and to develop and evaluate specific strategies to help schools implement effective research-based school and classroom practices.

Johns Hopkins University
Education Research and Development Center
3505 Charles Street
Baltimore, MD 21218
(301) 338-7570

Center on Effective Secondary Schools

The center is dedicated to learning how to improve the achievement of all students through school-site strategies that enhance student learning. Special attention is directed to the needs of disadvantaged and less successful students. Major projects include research on academic achievement, higher order thinking, at-risk students, staff working conditions, and school change.

Wisconsin Center for Education Research
School of Education, University of Wisconsin
1025 West Johnson Street
Madison, WI 53706
(608) 263-7575

Center for Improving Postsecondary Learning and Teaching

The center focuses its research, development, and dissemination activities on five aspects of college learning environments that affect learner outcomes: classroom learning and teaching strategies, curricular structure and integration, faculty attitudes and teaching behaviors, organizational practices, and use of emerging information technology. While recognizing multiple student outcomes of college such as cognitive development, and personal and career development, the center emphasizes cognitive development in colleges with teaching as their primary mission. Recent dramatic progress

of research in cognition holds great promise for improving learning and teaching.

School of Education
University of Michigan
Ann Arbor, MI 48109
(314) 764-9472

Education Commission of the States (ECS)

In December 1985, ECS published a comprehensive review of recent state activities in this field, entitled "New Directions for State Teacher Policies," by Judith Bray, Patricia Flakus-Mosqueda, Robert M. Palaich, and JoAnn S. Wilkens. The booklet describes specific state policies in four broad areas: recruitment, recognition, reward, and renewal. It also includes a survey of all fifty states and the District of Columbia, comparing pre-service, induction, and inservice policies. The booklet reflects the situation current in the states as of September 1985. The cost is $12.50.

1860 Lincoln Street
Suite 300
Denver, CO 80203
(303) 830-3692